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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,803	03/26/2004	CHIH-KANG WU	11124-US-PA	2802

31561 7590 10/06/2005

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE  
7 FLOOR-1, NO. 100  
ROOSEVELT ROAD, SECTION 2  
TAIPEI, 100  
TAIWAN

EXAMINER

NEGRON, ISMAEL

ART UNIT PAPER NUMBER

2875

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/708,803

Applicant(s)

WU, CHIH-KANG

Examiner

Ismael Negron

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Title*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Back Light Module **Including Plate with Heat Transfer Reducing Gap**.

### *Abstract*

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, the abstract should include the technical disclosure of the improvement. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;

(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it fails to concisely state the subject matter of the invention, and includes phrases which can be implied. Correction is required. See MPEP § 608.01(b).

The Examiner respectfully suggests amending the abstract as follows:

A back light module ~~comprising~~ **includes** a frame, a reflective plate, at least a light source, a caved transparent plate, a diffusion plate and several optical films ~~is provided~~. The reflective plate is set up at a bottom section of the frame, **with** and the light source ~~is set up~~ **positioned** within the frame above the reflective plate. The caved transparent plate is ~~set up~~ **positioned** over the frame **and** above the light source. The diffusion plate ~~is set up~~ **may be positioned** over **or under** the caved transparent plate such that a gap is formed between **the** diffusion plate and the caved transparent plate. The optical films are set up over the diffusion plate. ~~With the caved transparent plate disposed inside the back light module,~~ **The gap prevents** heat ~~is prevented~~ from passing from the back light module into a liquid crystal display panel.

***Specification***

3. The disclosure is objected to because of the following informalities:
- line 2 of paragraph 0027 should read "the air gap 212 between the caved transparent plate 208";
  - line 1 of paragraph 0028 should read "In addition, several optical film layers 214 are set up over";
  - line 2 of paragraph 0035 should read "the air gap 212 between the caved transparent plate 208"; and
  - line 1 of paragraph 0036 should read "In addition, several optical film layers 214 are set up over".

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1, 3-7 and 9-12 are rejected under 35 U.S.C. 102(a) as being anticipated by YU et al. (TAIWAN Pat. App. Pub. 092-103,719).

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5. YU et al. discloses an illumination device having:

- **a frame (as recited in claims 1 and 7), as seen in Figure 2;**
- **a reflective plate (as recited in claims 1 and 7), Figure 2, reference number 57;**
- **the reflective plate being located at a bottom section of the frame (as recited in claims 1 and 7), as seen in Figure 2;**
- **at least a light source (as recited in claims 1 and 7), Figure 2, reference number 55;**
- **the light source being located within the frame (as recited in claims 1 and 7), as seen in Figure 2;**
- **the light source being positioned above the reflective plate (as recited in claims 1 and 7), as seen in Figure 2;**
- **a caved transparent plate (as recited in claims 1 and 7), Figure 2, reference number 67;**
- **the transparent plate being located over the frame (as recited in claims 1 and 7), as seen in Figure 2;**
- **the caved transparent plate being positioned above the light source (as recited in claims 1 and 7), as seen in Figure 2;**
- **a diffusion plate (as recited in claims 1 and 7), Figure 2, reference number 64;**
- **the diffusion plate being positioned over the caved transparent plate (as recited in Claim 1), as seen in Figure 2;**

- **a gap being formed between the diffusion plate and the caved transparent plate (as recited in claims 1 and 7);**
- **a plurality of optical films (as recited in claims 1 and 7), Figure 2, reference number 58;**
- **the optical films being located over the diffusion plate (as recited in Claim 1), as seen in Figure 2;**
- **the material forming the caved transparent plate including a transparent acrylic material (as recited in claims 3 and 9), page 8, lines 18-21;**
- **a plurality of support elements (as recited in claims 4 and 10), vertical walls between elements 65 and 67 in Figure 2;**
- **the support elements being positioned between the caved transparent plate and the diffusion plate (as recited in claims 4 and 10), as seen in Figure 2;**
- **the light source including at least a lamp tube or a light-emitting diode (as recited in claims 5 and 11), as seen in Figure 2;**
- **the optical films including light enhancing plates or prism plates (as recited in claims 6 and 12), Figure 2, reference numbers 60 and 62;**
- **the diffusion plate being located over the frame (as recited in Claim 7), as seen in Figure 2;**

- **the caved transparent plate being positioned above the diffusion plate (as recited in Claim 7), as evidenced by page 9, lines 1-5; and**
- **the optical films being located over the caved transparent plate (as recited in Claim 7), as evidenced by page 9, lines 1-5.**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over YU et al. (TAIWAN Pat. Pub. 092-103,719).

7. YU et al. discloses an illumination device having:

- **a frame (as recited in claims 1 and 7), as seen in Figure 2;**
- **a reflective plate (as recited in claims 1 and 7), Figure 2, reference number 57;**
- **the reflective plate being located at a bottom section of the frame (as recited in claims 1 and 7), as seen in Figure 2;**
- **at least a light source (as recited in claims 1 and 7), Figure 2, reference number 55;**



- **the light source being located within the frame (as recited in claims 1 and 7), as seen in Figure 2;**
- **the light source being positioned above the reflective plate (as recited in claims 1 and 7), as seen in Figure 2;**
- **a caved transparent plate (as recited in claims 1 and 7), Figure 2, reference number 67;**
- **the transparent plate being located over the frame (as recited in claims 1 and 7), as seen in Figure 2;**
- **the caved transparent plate being positioned above the light source (as recited in claims 1 and 7), as seen in Figure 2;**
- **a diffusion plate (as recited in claims 1 and 7), Figure 2, reference number 64;**
- **the diffusion plate being positioned over the caved transparent plate (as recited in Claim 1), as seen in Figure 2;**
- **a gap being formed between the diffusion plate and the caved transparent plate (as recited in claims 1 and 7);**
- **a plurality of optical films (as recited in claims 1 and 7), Figure 2, reference number 58;**
- **the optical films being located over the diffusion plate (as recited in Claim 1), as seen in Figure 2;**
- **the diffusion plate being located over the frame (as recited in Claim 7), as seen in Figure 2;**

- **the caved transparent plate being positioned above the diffusion plate (as recited in Claim 7), as evidenced by page 9, lines 1-5; and**
- **the optical films being located over the caved transparent plate (as recited in Claim 7), as evidenced by page 9, lines 1-5.**

8. YU et al. discloses all the limitations of the claims, except the caved transparent plate having a height between 2 to 5 millimeters (as recited in claims 2 and 8).

9. It would have been obvious to one of ordinary skill in the art at the time the invention was made to formed the caved transparent plate having a height between 2 to 5 millimeters (as recited in claims 2 and 8), since it has been held by the courts that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device, and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. *In Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984).

***Relevant Prior Art***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Imoto** (U.S. Pat. 4,826,294), **Endo et al.** (U.S. Pat. 5,064,276), **Ohno et al.** (U.S. Pat. 5,128,781), **Igram** (U.S. Pat. 5,709,463), **Yu et al.** (U.S. Pat. App. Pub. 2004/0165124) and **Kuo** (U.S. Pat. App. Pub. 2004/0208003) disclose backlight structures for LCD devices, such structures including a light source, a reflective plate positioned below the light source, and caved transparent plates forming a gap between the light source and the LCD panel.

**Suzawa** (U.S. Pat. 4,618,216), **Uehara et al.** (U.S. Pat. 5,659,376), **Fujishiro et al.** (U.S. Pat. App. Pub. 2003/0095216) LCD devices including a reflective plate, a light source positioned over the reflective plate, a diffusive panel, and an LCD panel. A cavity is formed between the light source and the diffusive panel.

***Conclusion***

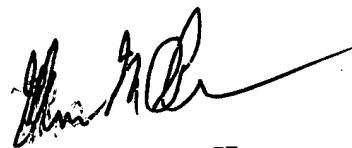
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ismael Negron whose telephone number is (571) 272-2376. The examiner can normally be reached on Monday-Friday from 9:00 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea, can be reached on (571) 272-2378. The facsimile machine number for the Art Group is (703) 872-9306.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) toll-free at 866-217-9197.

  
THF

September 29, 2005

  
**THOMAS M. SEMBER**  
**PRIMARY EXAMINER**